



STATE OF WASHINGTON

DEPARTMENT OF AGRICULTURE

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Section 18 Pesticide Use Compliance Project

FINAL REPORT

December 1, 2001

INTRODUCTION

WSDA implemented the Section 18 Pesticide Use Compliance Project on March 1, 2000. The project was scheduled for a minimum of eighteen months to gather compliance data through two full use seasons. The data presented in this report incorporates the results from the 2000 and 2001 use seasons.

During the 2000 and 2001 use seasons, Washington State Department of Agriculture (WSDA) conducted Section 18 pesticide use inspections. These inspections were made to assure that the granting documents and label directions for Section 18 pesticides as well as applicable state laws and rules are being followed in areas that provide habitat for threatened and endangered fish species.

At the end of the 2000 use season, WSDA augmented the use inspection data by completing spot checks of dealer distribution records and Section 18 pesticide application records. WSDA reviewed dealer and applicator records to determine if the records were kept according to the applicable state laws and rules and if Section 18 pesticides are being properly applied.

WSDA plans to analyze the use inspection data and records reviews to establish if Section 18 pesticides are used properly. This analysis will also evaluate Section 18 pesticide granting documents, labels and compliance activities to ascertain if sufficient guidance has been provided to assure that Section 18 pesticide use is consistent with the recovery of threatened and endangered fish species. WSDA also employed the records reviews to determine if the statutory authority to get pesticide distribution and application records when requested is effective.

The Section 18 use inspections and pesticide records review allow WSDA to evaluate and document Section 18 pesticide use for compliance with granting documents and label directions. The proper use of Section 18 pesticides is necessary for Washington agriculture to maintain an expeditious Section 18 registration program. This program is a vital component in the management of emerging pest or disease problems and loss mitigation for previously available pesticide tools.

PROJECT PLAN

Pesticides Selected

WSDA selected thirteen Section 18 pesticides for the project based on the 1999 and 2000 Section 18 exemptions granted by the U.S. Environmental Protection Agency (EPA). As part of the selection process, WSDA reviewed the cropping systems, anticipated acres to be treated and use location for each

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Section 18 pesticide. WSDA also evaluated and ranked each Section 18 pesticide according to its toxicity to fish. The toxicity to fish was determined using the LC₅₀ of chemical and the table below.

U.S. EPA HAZARD CLASSIFICATIONS

LC ₅₀ (ppm)*	Category Description
< 0.1	very highly toxic
0.1 - 1.0	highly toxic
>1 - 10	moderately toxic
>10 - 100	slightly toxic
> 100	practically nontoxic

* toxicity of compounds to aquatic organisms

WSDA reviewed the application of selected Section 18 pesticides considered very highly toxic (VHT), highly toxic (HT) and moderately toxic (MT) to fish. Refer to Table 1 for details.

TABLE 1.

SECTION 18 PESTICIDE SELECTION & INSPECTION ACTIVITY						
Final - March 17, 2000 through September 15, 2001						
(Data for two use seasons)						
Product Brand Name	Chemical Name	Fish Toxicity	Crop	Number of Use Inspections Completed		
				2000 Use Season	2001 Use Season	TOTAL
Acramite 50WS ¹	Bifenazate	HT	Hops	0	2	2
Acramite 50WS ¹	Bifenazate	HT	Pears	0	4	4
Aim 40DF ¹	Carfentrazone-ethyl	VHT	Hops	0	6	6
Aphistar 50WSP	Triazamate	HT	Christmas trees	18	33	51
Brigade WSB ²	Bifenthrin	VHT	Red raspberries	1	0	1
Danitol 2.4EC	Fenpropathrin	HT	Currants	3	1	4
Flint ²	Trifloxystrobin	VHT	Hops	2	0	2
Folicur 3.6F	Tebuconazole	MT/HT	Hops	1	0	1
Gramoxone Extra	Paraquat dichloride	MT	Dry & green peas	2	0	2
Orbit 3.6EC	Propiconazole	MT	Blueberries	1	1	2
Prowl 3.3EC ¹	Pendimethalin	MT	Mint	0	2	2
Rally 40W	Myclobutanil	MT/HT	Hops	12	8	20
Switch 62.5WG	Fludioxinol+cyprodinil	MT/HT	Caneberries	16	5	21
Tough 5EC ²	Pyridate	MT	Mint	2	0	2
TOTALS				58	62	120

¹ These products were not available for Section 18 use in 2000. They were submitted and approved for the 2001 use season.

² EPA granted tolerance for residue on these 2000 granted Section 18 pesticides. The products were not resubmitted for the 2001 use season.

Watersheds Selected

For the 2000 use season, WSDA selected eight watersheds for conducting Section 18 use inspections. These eight rivers and selected tributaries were chosen after discussions with local and state Fish and Wildlife and Conservation districts and the Washington State Department of Ecology. WSDA also reviewed Water Resource Inventory Area (WRIA) maps to verify that these watersheds were located in an active agricultural area and included a threatened or endangered species listing. WSDA chose the following river basins for project activity during the 2000 use season: Chehalis, Cowlitz, Newaukum, Nooksack, Skagit, Touchet, Walla Walla and Yakima watersheds. During the 2001 use season, WSDA added the Entiat and Wenatchee watersheds to expand the Section 18 use inspection activities to include tree fruits (Acrامة 50WS for use on pears).

Pre-application Notification Zones

WSDA, in conjunction with Yakima County Geographic Information Services, prepared maps for each watershed in the project. Each map was overlaid with a township and range grid so that an applicator could identify the location of the acreage to be treated with a Section 18 pesticide. Numbered sections identified the Pre-Application Notification Zones – land located within approximately one mile of the selected river and its tributaries.

WSDA required that the Section 18 pesticide granting documents contain a mandatory 48-hour pre-application notification if any part of the pesticide application occurred within the Pre-Application Notification Zone. The notification allowed WSDA to randomly select Section 18 applications for observation and allow WSDA to get to the application sites in a timely manner.

The 48-hour pre-application notification was not practical for all Section 18 pesticide applications due mainly to integrated pest management schedules. WSDA did make allowances for applicators to tailor notification requirements for particular applications. Two commodity groups, hop growers and potato growers, requested a notification variance.

Both groups received their requested amendments to the pre-application notification requirement. The amendments allowed the applicators to provide “preliminary” notification to WSDA within 24 hours of a Section 18 application. The applicators were then required to provide “final” notification to WSDA no later than 6 hours prior to the application.

WSDA collected pre-application notifications from growers through telephone, fax and e-mail contacts. Refer to Table 2 for a breakdown of pre-application notifications by area.

TABLE 2.

SECTION 18 USE COMPLIANCE PROJECT SCORECARD <i>Final – March 17, 2000 through September 15, 2001</i> (Data for two use seasons)				
	Olympia	Yakima	Wenatchee	Cumulative Total
Pre-notification calls	193	261	11	465
Inspections completed *	75 (39%)	41(16%)	4 (36%)	120 (26%)
Number in compliance **	75 (100%)	38 (93%)	4 (100%)	117 (96%)
Summary of any significant non-compliance issues: WPS restricted entry violation - 2 Application violations found through records call-in - 1 NOTE: WSDA conducted records reviews for only the 2000 use season. No records reviews for the 2001 use season were conducted. * Expressed as a percentage of the pre-notification calls. ** Expressed as a percentage of completed inspections.				

PROJECT FINDINGS

Use Inspections

WSDA completed 120 use inspections during the 2000 and 2001 use seasons. During the 2000 use season, WSDA received 180 pre-application notifications and completed 58 Section 18 use inspections. Fifty-six applicators were in compliance. Staff issued two Notices of Correction as a result of the use inspections.

In 2001, the number of pre-application notifications rose from 180 to 285, an increase of 58 percent. The rise in the number of notifications was due to increased awareness in the agricultural community, particularly among hop growers, of the label requirement to notify WSDA of a Section 18 pesticide use. The increased awareness was a direct result of the spot checks of individual and/or dealer records conducted in 2000.

The increase in notifications resulted in a 6 percent increase in inspections. Staff conducted 62 use inspections in 2001, compared with 58 inspections in 2000. In 2001, only one inspection resulted in a Notice of Correction. Refer to Table 2 for a recap of pre-application notification and Section 18 use inspection activities

Over the two-year project, WSDA issued a Notice of Correction to three growers cited for non-compliance. The first grower was cited for a violation of restricted entry interval (REI). The second grower was cited for not maintaining pesticide application records in the form and format prescribed by WSDA, not following label directions when applying pesticides, and not acquiring the appropriate permit for evening application of a restricted use desiccant. WSDA required that both growers initiate corrective

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During the Section 18 use inspections, WSDA also noted that Worker Protection Standards (WPS) requirements were not routinely followed. WSDA did not issue any Notices of Correction for WPS violations. However, WSDA did employ the incidents of violation to provide WPS technical assistance to the growers. The most common problems were failure to adhere to Restricted-Entry Interval (REI) requirements for short-term activities, not wearing all of the required personal protective equipment and inconsistently posting treated fields.

WSDA augmented the use inspection data by completing spot checks of dealer and individual Section 18 pesticide application records for the 2000 use season. WSDA reviewed nine dealer distribution records and fifteen applicator records to determine if the records were kept according to the applicable state laws and rules and if Section 18 pesticides are being applied properly. WSDA also employed the records reviews to determine if the statutory authority to get pesticide distribution and application records when requested is effective. Unlike the use inspection visits, the results of the records reviews revealed significant areas of non-compliance.

WSDA reviewed nine dealer records for distribution of Section 18 pesticides. WSDA found that dealers did not routinely include three record keeping requirements in the distribution records: 1) the address of the purchaser, 2) the complete name of the pesticide and/or the EPA registration number, and 3) the number of pounds or gallons of the pesticide distributed. WSDA issued Notices of Correction to each of the nine dealers, citing failure to keep and maintain adequate and complete pesticide distribution records. Refer to Table 3 for a breakdown of specific pesticide distribution record violations.

# of Dealers	SECTION 18 RECORDS REVIEW					
	Final Results – <i>Distribution Records Data</i> *					
	Compliance Violations					
	Name of consignor	Date of distribution	Full name of purchaser	Address of Purchaser	Brand & specific pesticide name and/or EPA registration number	Number of pounds or gallons of the pesticide distributed
9	1	2	1	6	4	7

* Data reflects only pesticide distribution records from dealers. The data indicates the number of dealer(s) who violated the listed law and/or rule. The data does not list each incidence of the record keeping violation found during the records reviews.

Reviews of the records for custom applications by dealers are listed in Table 4, “Final Results – *Application Record Keeping Data.*”

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While conducting the application records reviews, WSDA revealed a significant area of concern. Many of the pesticide application records indicated a failure by applicators to apply pesticides properly. In the fourteen Notices of Correction mentioned above, WSDA also cited eight applicators for failure to use pesticides according to the label directions and the regulations of the director. Refer to Table 4 for a breakdown of specific pesticide application record violations.

TABLE 4.

Crop or Activity	SECTION 18 RECORDS REVIEW							
	Final Results – <i>Application Record Keeping Data</i> *							
	Number of Respondents	Compliance Violations by Respondent						
Failed to notify prior to use		Failed to follow application interval	Application rate exceeded label rate maximum	Application rate below label rate minimum	Exceeded maximum # of applications	Used prior to granting date	Failed to follow tank mix restriction	
Hop	5	5	4	3	3	1	0	1
Mint	1	0	0	0	0	0	0	0
Berries	8	2	0	2	0	0	1	0
Custom Applicator	1	0	0	0	0	0	0	0
Totals	15	7	4	3	3	1	1	1

Data reflects use violations by applicator. The data indicates the number of applicator(s) who violated the listed law and/or rule. The data does not list each incidence of the use violation found during the records reviews.

WSDA planned to expand the project scope to include surface water sampling for select Section 18 pesticides. Currently, the Washington State Pesticides/ESA Task Force* is developing an integrated surface water monitoring effort focused on threatened and endangered salmonid habitat. Sampling to detect Section 18 pesticides in Washington state surface waters will be incorporated into the Task Force monitoring effort.

Analysis of water sampling data coupled with data gathered from use inspections and records reviews will provide a sound, historical data set for Section 18 pesticides. The data may allow WSDA to evaluate if compliance with the Section 18 program is consistent with the recovery of threatened and endangered fish species. WSDA may use the results of the surface water monitoring to make decisions about modifying or adding regulations for the use of Section 18 pesticides.

**The Washington State Pesticide/ESA Task Force is an interagency technical and policy team composed of scientists and managers from resource and regulatory agencies and includes: NMFS-Northwest Region, USFWS-Western Washington Office, US EPA-Region 10, Washington State Departments of Agriculture, Fish and Wildlife, Natural Resources and Ecology. Scientists from the US Geological Survey and Washington State University contribute to the Task Force in an advisory capacity.*

RECOMMENDATIONS

WSDA, through outreach efforts, must encourage applicators to review not only Section 18 pesticide labels but also all pesticide labels to assure that the pesticides are used in accordance with the requirements and that the applicator is maintaining accurate application records. To assure that all pesticides are being used properly, WSDA needs to continue random agricultural use inspections, maintaining the focus on compliance with the pesticide label and applicable state laws and rules. WSDA must continue to initiate appropriate corrective measures when areas of non-compliance are found.

As a result of the Section 18 records review, WSDA has initiated technical assistance and public outreach activities to ensure that Section 18 and all pesticides are used properly and accurate records are kept. WSDA has provided dealers and applicators with instructions for maintaining accurate pesticide distribution and application records. WSDA also utilized *Agrichemical and Environmental News* as well as *Pesticide Notes*, a WSDA publication, to deliver record keeping technical assistance. Through these outreach efforts, WSDA encourages dealers and applicators to review pesticide labels and use pesticides in accordance with the label requirements.

Documented proper use of Section 18 pesticides is necessary for Washington agriculture to maintain an expeditious Section 18 pesticide registration program. The registration of Section 18 pesticides is crucial to manage emerging pest or disease problems and mitigate the loss of previously available pest control tools. WSDA may use the final results of the 2000 and 2001 crop season compliance activities as a measurement tool to make informed decisions concerning the need to modify or create additional regulations for the use of Section 18 pesticides.